



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/590,521	06/09/00	RODRIGUEZ	A A-5704

005642 WM21/0409
SCIENTIFIC-ATLANTA, INC.
INTELLECTUAL PROPERTY DEPARTMENT
5030 SUGARLOAF PARKWAY
LAWRENCEVILLE GA 30044

EXAMINER	
SRIVASTAVA, V	
ART UNIT	PAPER NUMBER

2611

5

DATE MAILED: 04/09/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/590,521

Applicant(s)
Arturo A. Rodriguez et al

Examiner
Vivek Srivastava

Group Art Unit
2611

☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-26 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-26 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2611

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2, 4, 9, 10, 17, 21, and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 2, 4, 9, 10, 17, 21 and 23, a Markush group claim must be definite and complete as to membership. The group defined as "comprising..." is indefinite. However, substituting "consisting of.." for "comprising.." would render the claim definite reversing the 112 rejection.

Claim Rejections - 35 U.S.C. § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

Art Unit: 2611

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 14 - 17, 19, 21, 23 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki (5,943,047).

Considering claim 14, Suzuki discloses a digital home communication terminal for use in a digital broadband delivery system (see fiber optics in col 5 lines 22 - 47, col 11 line 63 - col 12 line 64) containing a bandwidth allocation manager (col 12 lines 10 - col 13 line 41, col 14 lines 36 - 56, allocation manager met by transmission planning means), an interface that receives a subscriber criteria (col 12 lines 40 - 44), a tuner that transmits the subscriber criteria to the bandwidth allocation manager for use in dynamically allocating bandwidth in the digital broadband delivery system (fig 10 item 11, col 12 line 10 - col 13 line 41, col 14 lines 45 - 56).

Considering claim 15, Suzuki discloses further comprising a tuner that receives channel allocation information from the bandwidth allocation manager and processes the information into a format suitable for presentation to a subscriber (fig 10, col 14 lines 46 - 62, col 15 lines 13 - 27).

Considering claim 16, wherein the channel allocation information comprises VOD catalogue data (see menu col 17 lines 26 - 31).

Considering claim 17, Suzuki discloses wherein the allocation criteria received from the subscriber is a video-on-demand request (col 12 lines 25 - 64).

Art Unit: 2611

Considering claim 19, Suzuki discloses a method for allocating bandwidth in a digital broadband delivery system (see fiber optics in col 5 lines 22 - 47, col 11 lines 63 - col 13 line 42), comprising initiating a bandwidth allocation event (col 11 lines 13 - 19, col 11 lines 63 - col 13 line 42, initiating is inherent since user sends request for video in response to initiation for headend), receiving an allocation criteria from a subscriber (col 11 lines 63 - col 13 line 42, allocation criteria met by request), and dynamically determining a bandwidth allocation schedule based at least on partially on the allocation criteria received from the subscriber (col 11 lines 63 - col 13 line 42, col 14 lines 36 - 62, col 15 lines 13 - 27).

Considering claim 21, Suzuki discloses wherein the content delivery mode is selected from video-on-demand (col 1 lines 8 - 12).

Considering claim 23, see claim 17.

Considering claim 25, Suzuki discloses wherein the determining a bandwidth allocation schedule based at least partially on the allocation criteria received from the subscriber includes processing the allocation criteria according to a statistical model (col 13 lines 4 - col 14 line 56, statistical model is met by capacity allocated with respect to time zone).

Claim Rejections - 35 U.S.C. § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2611

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 - 4, 6 - 9, 10, 12, 13, 20, 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (5,943,047) in view of Brown (5,771,435).

Considering claim 1, Suzuki discloses a bandwidth allocation manager for determining bandwidth allocation in a digital broadband delivery system (see fiber optics in col 5 lines 22 - 47, col 11 lines 63 - col 13 line 42). Suzuki fails to disclose wherein the bandwidth allocation manager dynamically assigns a content delivery mode to a plurality of digital transmission channels based at least partially on an allocation criteria received from a subscriber.

Suzuki discloses a bandwidth allocation manager dynamically assigning transmission channels at least partially on an allocation criteria received from a subscriber (col 11 lines 63 - col 13 line 42, col 14 lines 36 - 56, allocation manager met by transmission planning means). Brown teaches a hybrid NVOD and VOD system wherein when it is determined that VOD request strains a system, a requester is directed to view a NVOD time - staggered version of the requested program (col 3 lines 52 - 60, col 7 lines 13 - 56). It would have been obvious a hybrid VOD - NVOD system would have accommodated a greater number of requesters while minimizing strain on the system bandwidth since a dedicated stream would not be needed for each requester as required in a VOD system. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki to include the claimed content delivery mode to have an option of switching to an NVOD time staggered broadcast to

Art Unit: 2611

accommodate a greater number of subscribers when necessary without straining the system's bandwidth.

Considering claim 2, Suzuki discloses wherein the content delivery mode is selected from video-on-demand (col 1 lines 8 - 12).

Considering claim 3, Suzuki fails to discloses wherein the content delivery mode comprises a video content delivery mode wherein at least two instances of a same movie video content are transmitted at time-spaced intervals of varying length.

Since it would have been obvious to include an NVOD system in Suzuki to accommodate a large number of requesters while minimizing bandwidth constraints, and since an NVOD system provides video content at time-spaced varying intervals, it would have been obvious to include a content delivery mode wherein at least two instances of a same movie video content are transmitted at time-spaced intervals of varying length to provide a system which would have accommodated a large number of requesters while minimizing system bandwidth constraints.

Considering claim 4, Suzuki discloses wherein the allocation criteria received from the subscriber is a video-on-demand request (col 12 lines 25 - 64).

Considering claim 6, Suzuki discloses wherein the bandwidth allocation manager processes a plurality of allocation criteria according to a statistical model to determine the bandwidth allocation module (col 13 lines 4 - col 14 line 56, statistical model is met by capacity allocated with respect to time zone).

Art Unit: 2611

Considering claim 7, Suzuki discloses a bandwidth allocation system in a digital broadband delivery system (see fiber optics in col 5 lines 22 - 47, col 11 lines 63 - col 13 line 42), a bandwidth allocation manager that determines a bandwidth allocation schedule in the digital broadband delivery system based at least partially on an allocation criteria received from a subscriber (col 11 lines 63 - col 13 line 42, col 14 lines 36 - 56, allocation manager met by transmission planning means), a network manager in communication with the bandwidth allocation manager, wherein the network manager allocates the predetermined bandwidth according to the bandwidth allocation schedule determined by the bandwidth allocation manager (col 11 lines 63 - col 13 line 42, col 14 lines 36 - 56, network manager is inherent since the bandwidth is allocated according to the bandwidth allocated as determined by the transmission planner). Suzuki fails to disclose assigning a content delivery mode to a plurality of digital transmission channels.

Suzuki discloses a bandwidth allocation manager dynamically assigning transmission channels at least partially on an allocation criteria received from a subscriber (col 11 lines 63 - col 13 line 42, col 14 lines 36 - 56, allocation manager met by transmission planning means). Brown teaches a hybrid NVOD and VOD system wherein when it is determined that VOD request strains a system, a requester is directed to view a time-staggered version of the requested program (col 3 lines 52 - 60, col 7 lines 13 - 56). It would have been obvious a hybrid VOD - NVOD system would have accommodated a greater number of requesters while minimizing strain on the system bandwidth since a dedicated stream would not be needed for each requester as required in a VOD

Art Unit: 2611

system. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki to include the claimed content delivery mode to have an option of switching to an NVOD time staggered broadcast to accommodate a greater number of subscribers when necessary without straining the system's bandwidth.

Regarding claim 8, Suzuki fails to disclose the claimed video-on-demand application server in communication with the bandwidth allocation manager, wherein the VOD application server transmits a list of available content delivery modes to the bandwidth allocation manager.

The combination of Suzuki and Brown discloses transmitting via VOD mode or NVOD mode depending on constraints on the system's bandwidth. Brown further teaches monitoring the number of people requesting and viewing a VOD transmission and teaches allocating bandwidth for a VOD transmission only if system limits would not be exceeded (col 3 line 51 - col 4 line 15, col 7 line 13 - col 8 line 30). It would have been obvious providing a list of available modes to the bandwidth allocation manager to indicate whether or not to allocate bandwidth for a VOD session based on the availability of bandwidth and system limits. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki to include the claimed VOD applications server to indicate to the bandwidth allocation manager the list of modes available based on the available bandwidth and system limits.

Considering claim 9, Suzuki discloses wherein the content delivery mode is selected from video-on-demand (col 1 lines 8 - 12).

Art Unit: 2611

Considering claim 10, Suzuki discloses wherein the allocation criteria received from the subscriber is a video-on-demand request (col 12 lines 25 - 64).

Considering claim 12, Suzuki discloses wherein the bandwidth allocation manager processes a plurality of allocation criteria according to a statistical model to determine the bandwidth allocation module (col 13 lines 4 - col 14 lines 56, statistical model is met by capacity allocated with respect to time zone).

Regarding claim 13, see claim 3.

Considering claim 20, Suzuki fails to disclose determining a bandwidth allocation schedule based at least partially on the allocation criteria received from a subscriber comprises determining a bandwidth allocation schedule by dynamically assigning a content delivery mode to a plurality of digital transmission channels.

As discussed in claim 19, Suzuki discloses determining a bandwidth allocation schedule for transmitting VOD programming. Brown teaches a hybrid NVOD and VOD wherein when it is determined that VOD request strains a system, a requester is directed to view a time-staggered version of the requested program (col 3 lines 52 - 60, col 7 lines 13 - 56). It would have been obvious a hybrid VOD - NVOD system would have accommodated a greater number of requesters while minimizing strain on the system's bandwidth since a dedicated stream would not be needed for each requester as required in a VOD system. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki to include the claimed content delivery mode to have an option of switching to an NVOD

Art Unit: 2611

time staggered broadcast to accommodate a greater number of subscribers when necessary without straining the system's bandwidth.

Regarding claim 22, see claim 3.

Considering claim 26, Suzuki discloses comprising allocating bandwidth in the digital broadband delivery system according to the bandwidth allocation schedule (col 11 lines 63 - col 13 line 42, col 14 lines 36 - 56).

7. Claims 5 and 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (5,943,047) in view of Brown (5,771,435) as applied to claims 1 and 7 above, and further in view of Graves et al (5,410,344).

Regarding claim 5, Suzuki and Brown fail to disclose the claimed allocation criteria received from the subscriber comprises a plurality of subscriber reservation requests with at least two assigned priorities.

Like Suzuki, Graves also discloses a VOD system (col 9 lines 48 - 54) and teaches a system in which a user assigns ranking (priority) to programs enables screening of the programs to provide programs of interest to a viewer (col 7 lines 5 - 67). It would have been obvious a user assigning priorities to requests would provide a system for obtaining user preference information thus providing a user with programming of greater interest. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify

Art Unit: 2611

Suzuki and Brown to include the claimed allocation criteria to provide programming of greater interest to a viewer.

Regarding claim 11, see claim 5.

8. Claims 18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (5,943,047) in view of Graves et al (5,410,344).

Regarding claim 18, Suzuki fails to disclose the claimed allocation criteria received from the subscriber comprises a plurality of subscriber reservation requests with at least two assigned priorities.

Like Suzuki, Graves also discloses a VOD system (col 9 lines 48 - 54) and teaches a system in which a user assigns ranking (priority) to programs enabling screening of programs to provide programs of interest to a viewer (col 7 lines 5 - 67). It would have been obvious a user assigning priorities to requests would provide a system for obtaining user preference information thus providing a user with programming of greater interest. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Suzuki and Brown to include the claimed allocation criteria to provide programming of greater interest to a viewer.

Regarding claim 24, see claim 18.

Art Unit: 2611

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Arias et al (6,118,976) - Asymmetric data communications system

Ganek et al (5,682,597) - Hybrid VOD and NVOD system

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308- 5399 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivek Srivastava whose telephone number is (703) 305 - 4038. The

Art Unit: 2611

examiner can normally be reached on Monday - Thursday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andy Faile, can be reached at (703) 305 - 4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305 - 3900.

4/5/01



**VIVEK SRIVASTAVA
PATENT EXAMINER**